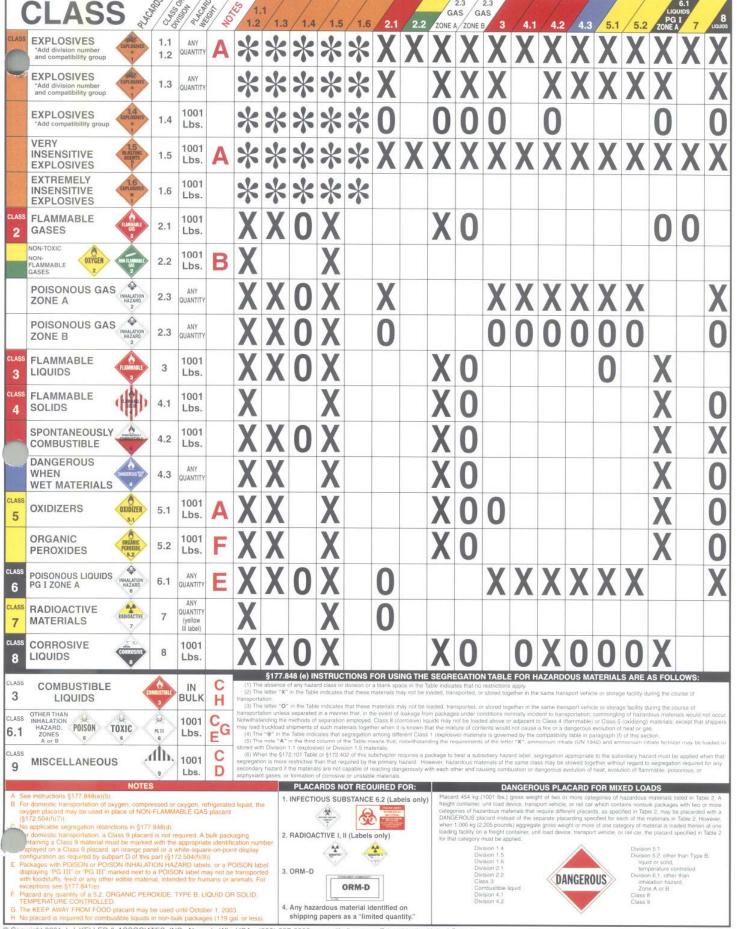
HAZARDOUS MATERIALS LOAD AND SEGREGATION CHART



HAZARDOUS MATERIALS MARKING CHART



ORIENTATION ARROWS

Each non-bulk package of hazardous materials having inner packagings containing liquid hazardous material must be marked on two opposing sides with this marking.



ORM-D-AIR

ORM-D

Each non-bulk packaging containing a material classed as ORM-D must be marked on at least one side or end with this marking.

The ORM-D designation must be immediately following or below the proper shipping name of the material.

If the shipment is to be by air, the marking must be ORM-D-AIR.

NOTICE

INSIDE PACKAGES COMPLY WITH D.O.T. PRESCRIBED SPECIFICATIONS AS REQUIRED IN 49CFR PART 173.25

INNER PACKAGINGS

An overpack containing authorized packages of hazardous materials must be marked with this marking, unless the specification markings on the inside packages are visible.

THIS PACKAGE CONFORMS TO 49 CFR 173.4

SMALL QUANTITY

By placing this marking on a package the shipper certifies conformance with the requirements in §173.4 for small quantity exceptions.

DOT-E 01234

EXEMPTION PACKAGE

Each package authorized by an exemption must be plainly and durably marked "DOT-E" followed by the exemption number assigned.



MARINE POLLUTANT

Non-bulk packagings which contain marine pollutants that are offered for transportation or transported by vessel must be marked with this marking in association with required labels or proper shipping name.

Bulk packagings which contain marine pollutants must be marked on each side and each end with this marking. Except for transportation by vessel, a bulk packaging that bears a label or placard is not required to display this marking.



HAZARDOUS WASTE

This marking can be used to meet DOT and EPA marking requirements.

Proper shipping names on non-bulk packages are not required to include the word "waste" if this marking is displayed in accordance with 40 CFR 262.32.

PG III

PACKING GROUP III

To take advantage of the exceptions in the regulations for a packaging containing a Division 6.1 PG III material, "PG III" must be displayed. The marking "PG III" may be placed adjacent to the POISON label or "PG III" may be displayed on the label. If "PG III" is displayed on the label it does not have to be marked adjacent to the label.



INHALATION HAZARD

Each package containing material that is poisonous by inhalation must be marked "Inhalation Hazard" in association with the required labels or placards, as appropriate, or shipping name when required. Bulk packages must be marked on two opposing sides.

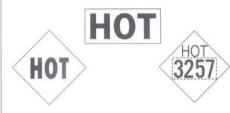
This marking is not required if the words "Inhalation Hazard" appear on a label or placard.



FUMIGANT

No person may offer for transport or transport a rail car, freight container, truck body, or trailer that has been or is being furnigated, unless this marking is prominently displayed so it can be seen by any person attempting to enter the transport vehicle or freight container.

For domestic transport an EPA warning label (40 CFR Part 156) may be used as an alternative to this marking.



ELEVATED TEMPERATURE MATERIAL

Bulk packagings of elevated temperature material must be marked on two opposing sides with the word "HOT".

The combining of the "HOT" marking and the identification number marking on the same white square-on-point configuration is allowed.

04-02 VIPLKT

CARGO TANK TEST/INSPECTION

Each cargo tank successfully completing a test/inspection must be marked with the date (month and year) and the type of test/inspection completed. The test/inspection may be abbreviated as follows:

V - external visual I - internal visual L - lining K - leakage

P - pressure

T - thickness



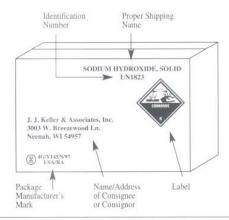
1951

3082

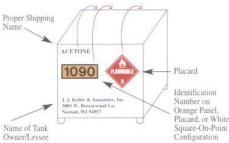
IDENTIFICATION NUMBER DISPLAY

When allowed by the regulations, the identification number can be displayed on a placard, orange panel, or white square-on-point configuration.

NON-BULK PACKAGE

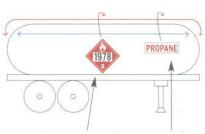


PORTABLE TANK <1000 gallons capacity



Tanks with ≥1000 gallons capacity must have identification numbers displayed on all 4 sides.

BULK PACKAGE



CARGO TANK

Identification number on placard, orange panel, or white squareon-point configuration. Display on all 4 sides. Common name or proper shipping name for Class 2 materials. Display on all 4 sides.

HAZARDOUS MATERIALS PLACARDING CHART



EXPLOSIVES 1.1, 1.2, & 1.3

*The Division number 1.1, 1.2 or 1.3 and compatibility group are in black ink.
Placard any quantity of Division number 1.1, 1.2 or 1.3 material.

CLASS 2 Division 2.1





EXPLOSIVES 1.4

Placard 454 kg (1001 lbs.) or more of 1.4



CLASS 1

*The compatibility group is in black ink.
Placard 454 kg (1001 lbs.) or more of 1.5 Blasting



*The compatibility group is in black ink.
Placard 454 kg (1001 lbs.) or more of 1.6



OXYGEN
Placard 454 kg (1001 lbs.) or more aggregate
gross weight of either oxygen compressed or
oxygen, refrigerated liquid. See §172.504(I)(7).

Placard 454 kg (1001 lb gas. See DANGEROUS



NON-FLAMMABLE GAS

001 lbs.) or more aggregate non-flammable gas. See



POISON GAS

card any quantity of Division 2.3 material



FLAMMABLE

Placard 454 kg (1001 lbs.) or more gross weigh of flammable liquid. See DANGEROUS.



GASOLINE

used in the place of FLAMMABLE on a

CLASS 3



COMBUSTIBLE

Placard a combustible liquid when transported in bulk. A FLAMMABLE placard may be used in place of a Computible placard on a cargo tank or portable tank or a compartmented tank car which contains both Itanmable and combustible liquids. See §172.504(1)(2).





FUEL OIL

May be used in place of COMBUSTIBLE on a placard displayed on a cargo tank or portable tank being used to transport by highway fuel oil not classed as a flammable liquid. See §172.544(c).



FLAMMABLE SOLID

Placard 454 kg (1001 lbs.) or more gross weigh of flammable solid. See DANGEROUS.



SPONTANEOUSLY COMBUSTIBLE



DANGEROUS WHEN WET MATERIAL

CLASS 5



OXIDIZER

icard 454 kg (1001 lbs.) or more gross weigh exidizing material. See DANGEROUS.

CLASS 5



ORGANIC PEROXIDE

UNIANIC PENOXIDE Placard 454 kg (1001 lbs.) or more gross weight of organic peroxide. See DANGEROUS. Placard any quantity of 5.2. ORGANIC PEROXIDE. TYPE B LIQUID OR SOLID, TEMPERATURE CONTROLLED.

CLASS 6



POISON INHALATION HAZARD

Placard any quantity of Inhalation Haz or B material



Polson 454 kg (1001-lbs.) or more gross weight of poison. See DANGEROUS. See TOXIC and PG III placards.

CLASS 6



TOXIC

Placard 454 kg (1001 lbs.) or more gross weight of poison. See DANGEROUS. The word "TOXIC" is allowed to be used in place of the word "POISON."

CLASS 6



PACKING GROUP III

Placard 454 kg (1001 lbs.) or more gross weight of Packing Group III. See DANGEROUS. The text 'PG III' is allowed to be used in place of the

CLASS 7



RADIOACTIVE

Placard any quantity of packages bearing the RADIOACTIVE YELLOW III label. Certain low specific activity radioactive materials in "exclusive use" will not bear the label, but the RADIOACTIVE placard is required.

CLASS 8



CORROSIVE

Placard 454 kg (1001 lbs.) or more gross of corrosive material. See DANGEROUS

CLASS 9



MISCELLANEOUS

MISCELLANEOUS

A Class 9 placard is not required. However, you may placard 454 kg (1001 lbs.) or more gross weight of a material which presents a hazard during transport, but which is not included in any other hazard class. See DANGEROUS.

SUBSIDIARY RISK





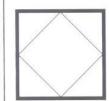
Allowed for rail or highway transport until October 1, 2005, See §172.519(b)(4).

DANGEROUS

Placard 454 kg (1001 lbs.) gross weight of two or more categories of hazardous materials listed in Table 2

A freight container, unit load device, transport vehicle, or rail car which contains nobulsk packages with two or more categories of hazardous materials that require different placards, as specified in Table 2. may be placarded with a DANGEROUS placard instead of the separate placarding specified for each of the materials in Table 2. However, when 1,000 kg (2.205 pounds) aggregate gross weight or more of one category of material is loaded therein at one loading facility on a treight container, unit load device, transport vehicle, or rait car, the placard specified in Table 2 for that category must be applied.

SQUARE BACKGROUND



when on rail cars: EXPLOSIVES 1.1 or 1.2; POISON

EXPLOSIVES 1.1 or 1.2, POISON GAS (Division 2.3, Hazard Zone A). POISON INHALATION HAZARD (Division 6.1, PG I, Hazard Zone A) and for DOT 113 tank cars FLAMMABLE GAS. The white square background is required for placards on motor vehicles transporting highway route controlled quantities of Class 7 materials:

DISPLAY OF IDENTIFICATION NUMBER

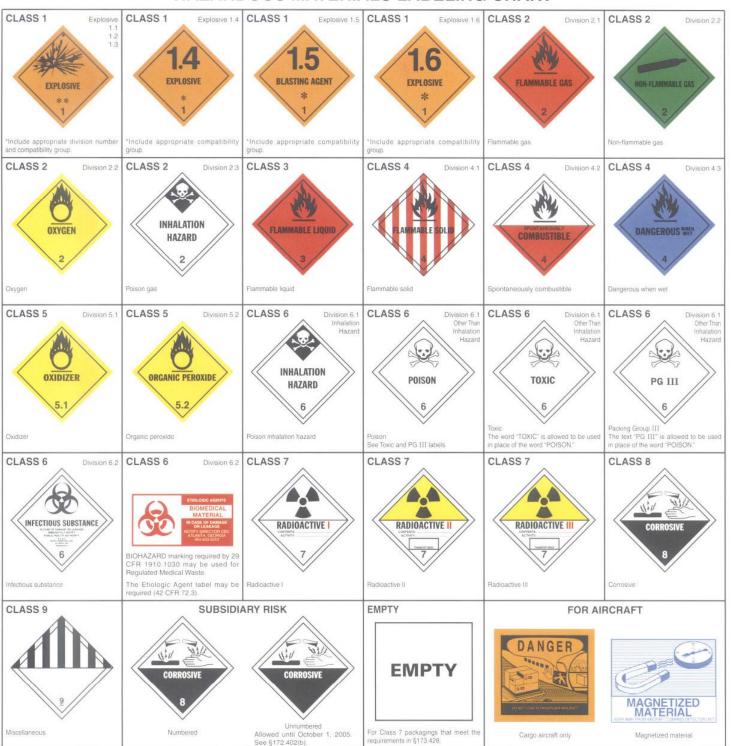


The display of an identification number on a placard is allowed, except for Class 1, Class 7, DANGEROUS, or subsidiary hazard placards.



For a COMBUSTIBLE placard used to display an identification number, the entire background below the identification number must be white for transportation by rail and may be white for

HAZARDOUS MATERIALS LABELING CHART



GENERAL GUIDELINES ON USE OF HAZMAT LABELS

- The shipper must attach the appropriate label(s) to each package of hazardous material offered for shipment unless excepted from labeling requirements. (§172.400)
- 2. If the material in a package has more than one hazard classification, the package must be labeled for each hazard. (§172.402)
- When two or more hazardous materials of different classes are packed within the same packaging or outer enclosure, the outside of the
 package or enclosure must be labeled for each class of hazardous material involved. (§172.404)
- 4. Radioactive materials requiring labeling, must be labeled on two opposite sides of the package. (§172.403)
- 5. A label should only be applied to a package containing a hazardous material if it represents the hazard inside. (§172.401)
- No one may offer or transport a package bearing any marking or label which by its color, design, or shape could be confused with a hazardous materials label. This does not prohibit the use of labels in conformance with U.N. Recommendations, IMDG Code, ICAO Technical Instructions, or TDG Regulations. (§172.401)

HAZARDOUS MATERIALS LOAD AND SEGREGATION CHART

C	OMP	ATIBIL	ITY TA	ABLE F	OR C	LASS	1 (EXI	PLOSI	VE) M	ATERIA	ALS		
COMPATIBILITY GROUP	Α	В	С	D	Е	F	G	н	J	К	L	N	S
А		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
В	Χ		Χ	X (4)	Χ	X	Х	Х	X	Х	Х	X	4/5
С	Х	X		2	2	X	6	Х	Х	Х	Х	3	4/5
D	Х	X (4)	2		2	Х	6	Х	X	Х	Х	3	4/5
E	Х	Х	2	2		Х	6	Х	Х	Х	Х	3	4/5
F	Х	Х	Χ	Х	Х		Х	Х	Х	Х	Х	Х	4/5
G	Х	X	6	6	6	Х		X	X	Х	Х	X	4/5
H	Х	X	Χ	Х	Χ	Х	X		Х	Х	Х	X	4/5
J	Χ	X	Χ	X	Χ	Х	X	X		Х	Х	Х	4/5
K	Х	Х	Χ	Х	Χ	Х	X	Х	Х		Х	Х	4/5
L	X	Х	Χ	Х	Χ	Х	Х	Х	Х	Х	1	Х	Х
N	Х	Х	3	3	3	X	Х	Х	Х	Х	Х		4/5
S	X	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	Х	4/5	

§177.848 (g) Instructions for using the compatibility table for Class 1 (explosive) materials are as follows:

- (1) A blank space in the Table indicates that no restrictions apply.
- (2) The letter "X" in the Table indicates that explosives of different compatibility groups may not be carried on the same transport vehicle.
- (3) The numbers in the Table mean the following:
- "1" means an explosive from compatibility group L shall only be carried on the same transport vehicle with an identical explosive.
- (ii) "2" means any combination of explosives from compatibility groups C, D, or E is assigned to compatibility group E.
- (iii) "3" means any combination of explosives from compatibility groups C, D, or E with those in compatibility group N is assigned to compatibility group D.
- (iv) "4" means 'see §177.835(g)' when transporting detonators.
- (v) "5" means Division 1.4S fireworks may not be loaded on the same transport vehicle with Division 1.1 or 1.2 (explosive) materials.
- (vi) "6" means explosive articles in compatibility group G, other than fireworks and those requiring special handling, may be loaded, transported and stored with other explosive articles of compatibility groups C, D and E, provided that explosive substances (such as those not contained in articles) are not carried in the same vehicle.
- (h) Except as provided in paragraph (i) of this section, explosives of the same compatibility group but of different divisions may be transported together provided that the whole shipment is transported as though its entire contents were of the lower numerical division (i.e., Division 1.1 being lower than Division 1.2). For example, a mixed shipment of Division 1.2 (explosive) materials and Division 1.4 (explosive) materials, both of compatibility group D, must be transported as Division 1.2 (explosive) materials.
- (i) When Division 1.5 materials, compatibility group D, are transported in the same freight container as Division 1.2 (explosive) materials, compatibility group D, the shipment must be transported as Division 1.1 (explosive) materials, compatibility group D.

CLASS 1 EXPLOSIVE PLACARDS

DIVISIONS 1.1, 1.2 & 1.3



The Division number and compatibility group are printed in black ink where the * is shown.

Placard any quantity of Division number 1.1, 1.2 or 1.3 material.

> * Division Numbers and Compatibility Group

1.1A	1.2B	1.2L
1.1B	1.20	1.3C
1.1C	1.2D	1.3F
1.1D	1.2E	1.3G
1.1E	1.2F	1.3H
1.1F	1.2G	1.3J
1.1G	1.2H	1.3K
1.1J	1.2J	1.3L
1.1L	1.2K	

DIVISION 1.4



The compatibility group is printed in black ink, where the * is shown.

Placard 454 kg. (1001 lbs.) or more of 1.4 Explosives.

* Compatibility Group

BODEFGS

DIVISION 1.5



The compatibility group is D. Placard 454 kg, (1001 lbs.) or more of 1.5 Blasting Agents.

DIVISION 1.6



The compatibility group is N. Placard 454 kg, (1001 lbs.) or more of 1.6 Explosives.

HAZARDOUS MATERIALS SHIPPING PAPERS

TO: Consignee Street Destination Route:	Zip	FROM: Shipper Street Origin Vehicle N	umber	U.S.	Z DOT Hai	ip mat Reg	No	
No. Shipping Units	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING	NAME)	HAZARD CLASS	I.D. Number	Packing Group	WEIGHT (subject to correction)		LABELS REQUIRES

Generally, whenever a hazardous material is transported its description must appear on the shipping paper.

The description must adhere to these requirements:

- If a hazardous material and a non-hazardous material are described on the same shipping paper, the hazardous material must be:
 - a. listed first
 - b. shown in a contrasting color (highlighted on a reproduction)
- identified with an "X" or "RQ" before the proper shipping name in the column marked "HM".
- 2. Entry must be legible and printed in English.
- Unless specifically authorized or required, the description may not contain codes or abbreviations.
- 4. Additional information must follow the basic description.
- If more than one page is required, the first page must indicate such, for example, 'page 1 of 4.'
- Shipping paper must show an emergency response telephone number, if required.
- 7. Shipping paper must contain shipper's certification, if required.

A shipping description must include:

- 1, proper shipping name (column 2, Hazardous Materials Table)
- 2. hazard class or division (column 3, Hazardous Materials Table)
- 3. identification number (column 4, Hazardous Materials Table)
- 4. packing group (column 5, Hazardous Materials Table)
- except for empty packagings, the total quantity, including unit for measurement, of the hazardous material.

§172.505 PLACARDING FOR SUBSIDIARY HAZARDS







- (a) Each transport vehicle, freight container, portable tank, unit load device, or rail car that contains a poisonous material subject to the "Poison Inhalation Hazard" shipping description of §172.203(m)(2) must be placarded with a POISON INHALATION HAZARD or POISON GAS placard, as appropriate, on each side and each end, in addition to any other placard required for that material in §172.504. Duplication of the POISON INHALATION HAZARD or POISON GAS placard is not required.
- (b) In addition to the RADIOACTIVE placard which may be required by §172.504(e) of this subpart, each transport vehicle, portable tank or freight container that contains 454 kg (1001 pounds) or more gross weight of fissile or low specific activity uranium hexafluoride shall be placarded with a CORROSIVE placard on each side and each end.
- (c) Each transport vehicle, portable tank, freight container or unit load device that contains a material which has a subsidiary hazard of being dangerous when wet, as defined in §173.124 of this subchapter, shall be placarded with DANGEROUS WHEN WET placards, on each side and each end, in addition to placards required by §172.504.
- (d) Hazardous materials that possess secondary hazards may exhibit subsidiary placards that correspond to the placards described in this part, even when not required by this part (see also §172.519(b)(4) of this subpart).